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## STORY OF SILVER-VOICE AND HER SISTER ZOË.

THE phenomena of memory are singular objects of study. I have often thought that a certain class of ideas and observations could be so arranged as to form an orderly, connected chain, one link of which would bring home all the others, however deeply sunken in the mind. But experience teaches me that this is not the case. During my residence in the East, though I kept a careful journal of everything that seemed interesting at the time, a thousand circumstances came to my notice which I did not set down; and when I have endeavoured to recall them, many have stubbornly refused to appear when wanted. But suddenly, when I least expect it, I now and then find myself irresistibly carried back to old times. Forms that had faded into distance—thoughts that had seemed dissolved into nothing—scenes and impressions which I had in vain sought to revive—obtrude themselves irresistibly on my notice. In general, the unexpected visitants are welcome; the fireside is rendered brighter and more cheerful by them; and their presence sends a glow through this northern atmosphere which allows autumn to steal on unperceived.

I was prevented last night from sleeping by the perpetual recurrence in my reveries of the name of Lady Silver-Voice. I had forgotten her existence, as one is apt to forget a beautiful thing amidst the material cares of this life. Let me endeavour to tell her story as simply as it was told to me.

But first, how I came to see her; for I have had that privilege. It was one evening in winter-time, that, after a prolonged illness, I was taking a stroll on the roof of a palace-like mansion in Cairo. The sun had set for me; it had gone down behind the interminable sea of houses. But I could still see it shining on the forest of minarets that rose through the moist, balmy air, and on the vast dome of the mosque that now towers above the citadel. The terrace-roof on which I was, though commanded at a distance by much more lofty buildings, was far raised above the humble dwellings near at hand, so that I could look down and observe the movements of my neighbours, who were most varied in race and costume—Turks and Maltese, Arabs and Greeks, Armenians and Copts—to say nothing of 'Jews and poultry,' which my servant, who brought me a pipe, added to the enumeration.

I passed some time in examining the movements of these various personages, who all come out upon their terraces to enjoy the evening air; and though I did not observe anything very characteristic, anything which would necessarily go down in my journal, I was suffi-

ciently interested not to notice the flight of time, and to allow complete darkness to gather round me whilst I still leaned over the parapet. Suddenly I was aroused from my contemplations by a snatch of a strange song sung in the most marvellously sweet voice I had ever heard. I started, not exactly like a guilty thing, but transfixed, as it were, by an almost painful shaft of delight. The voice swelled up on the night air, until, in spite of its divine sweetness, it became almost a cry of sorrow, and then ceased, leaving a thrill running through my frame that gradually seemed to shrink back to my heart, and expire there in a feeling of mingled joy and pain. Perhaps the state of my health rendered me peculiarly susceptible of strong emotions: I am afraid I wept. The darkness, however, prevented this weakness from being witnessed by Ali, who came to announce that my dinner was ready. I went down the winding staircase to the vast lonely hall, where I usually ate alone—the master of the house being absent on a journey; but though my appetite was that of a convalescent, I am sure I did not enliven the meal for myself by my usual humorous observations; to the officer, for example, that I was doubtful whether the beef was camel, or the mutton was donkey. All seemed rather surprised, especially when I asked him abruptly who it was that sang so sweetly in the neighbourhood.

He did not know! My curiosity was unsatisfied; but perhaps I went to bed that night with a fuller gush of happiness at my heart than if I had heard this prosy fellow's account of the matter. It is a frequent subject of meditation with me whether or not I am constituted as other men are. Are others played upon in this way by some slight occurrence?—by meeting with a face seen before only in a dream, by a peculiar smile, by a gesture, by a sigh, by a voice singing in the darkness? If not, who will understand the delicious watchful hours I passed that night, or the dreams, spangled with bright eyes, fairy forms, purple clouds, golden gleams, and buzzing with sweeter warblings than ever rolled in a nightingale's throat, that lured me on until morning?

Naturally, the first inquiries I made were about the voice; but I did not that day meet with any success. When evening approached, I again went up to the terrace; and, not to lengthen the story, I did see, just as the sun went down upon a low house not very far off, but looking into another street, a little fairy figure walking up and down, and leading a child by the hand. A kind of instinct told me that the voice was embodied before me; and presently all doubt was set at rest. The same silver tones rose upon the air; and this time I recognised that the song was in the Greek language. I remained looking intently in that direction, until

the form faded into a mere shadow; and then, as darkness increased, seemed to multiply before my aching eyes, and assume all sorts of fantastical shapes. Every now and then a couplet or a stanza came sweeping up. It was evident the lady, whoever she might be, was not singing merely to amuse the child. The notes were sometimes lively, but in general sad and plaintive. I listened long after the last quaver had died away, and was rather sulky when Ali came with the persevering joke that 'the camel was getting cold.'

Next day I suddenly remembered that an old Greek priest had frequently invited me to go to his house; and reproaching myself with the want of politeness I had hitherto exhibited, I ordered my donkey to be saddled, and started off. The ride was only of a few streets: it seemed to me quite a journey. On arriving, the worthy papa was fortunately at home, and by himself. He was delighted with my visit; and, after a small altercation with his servant, succeeded in getting me some coffee and a pipe. I admired the art with which I wound towards my query. The old gentleman suspected nothing; but when I casually asked if he knew who it was among his countrymen who sang like an angel, he quickly replied, 'It must be Silver-Voice, as she is called among the Moslem!'

I overturned my pipe on the mat in my eagerness to turn round and listen. Excellent old man! instead of clapping his hands for the servant, he went down upon his knees to collect the scattered tobacco, and replace it in the bowl, and silenced my excuse with as mild an 'It is no matter, my son!' as ever passed the lips of one of our species. He grew before my eyes in that humble posture; and when he returned to his seat, seemed fifty times as venerable as before. The same spirit would have led him to wash the feet of the poor.

He then told me the story of Silver-Voice and her sister:—

'Many years ago, a Greek merchant was walking through the slave-market, when he beheld for sale a little girl, so beautiful, and yet so sad, that though he was on the way to conclude a bargain for fifty thousand ardebs of beans, he could not prevail on himself to pass indifferently on.

"Of what country?" he inquired.

"A Candiot," replied the slave-dealer. She was from his own beloved island.

"How much?"

"Five thousand piastres."

"I will pay the price." The bargain was concluded on the spot. Another merchant got the beans; but Kariades took home the Silver-Voice to his house.

'The girl followed him, silently hanging down her head, and refusing to answer the questions he put in his kind, bluff way. Some great sorrow evidently weighed upon her, and she refused to be comforted. When, however, Kariades presented her to his wife, and said, "This shall be our daughter," the child opened her mouth and cried, "Wherefore, oh father, didst thou not come to the slave-market one short hour before?" He asked her meaning, and she explained that her sister had been separated from her, and sold to a Turk; and," cried she, "I will not live unless Zoë be brought back to my side." Kariades smiled as he replied, "I went forth this day to buy beans, and I have come back with a daughter. Must I needs go and fetch another?" "You must!" said the girl resolutely.

'From that hour forth she was the queen in the house. Kariades returned to the slave-market, but, strange to say, could find no clue to the fate of Zoë, although he offered double her price to the dealer. It was believed that she had been bought by a stranger merely passing through Cairo, and making no stay; for the public crier was employed to go about the streets

and proclaim that whoever would produce the girl should receive whatever he demanded. All was in vain. Time passed on; and the active grief of the Silver-Voice sobered down into steadfast melancholy. She continued living as the daughter or rather as the mistress of the house, knowing no want but that of her sister, and enchanting every one with the magnificence of her singing, until she reached the age of sixteen years.

'One day Kariades said to her, "My child, I must seek a husband for thee among the merchants of my people." But she firmly refused, declaring that there could be no joy for her unless she knew that her sister was not living in wretched thralldom in the house of some cruel Turk.

"But," said he, "what if death have overtaken her?"

"We promised, as we lay folded in each other's arms the night before we were parted, to be happy or sorrowful together—to laugh at the same time, to weep at the same time—and if one died, the other was never to cease grieving. I remember that, as they were dragging Zoë away, she turned her pale face, all sparkling with tears, towards me, and cried 'for ever!'"

"Meaning that you were parted for ever?"

"No; but that we were to be faithful to our vow for ever. I never shall forget the agonizing expression of that face. How can I? I see it every night in my dreams; and painful though it be, I rush into sleep as eagerly to behold it as if I were going into Paradise. No: I will never marry whilst that face threatens to interpose between my husband and me."

"Then this vision torments thee?"

"Ah, father!" and she shuddered, and bent her head.

'It was evident that her mind was weakened by too much contemplation of one idea.

'Kariades yielded before a will stronger than his own, and nothing more was said either about marriage or the lost Zoë for nearly a year. At the end of this time, Silver-Voice appeared before the good old man, and said, "Father, give me money; I have thought of a means by which I may find my sister Zoë." He looked sadly at her, but gave her what she required. Next day she disappeared, and was not heard of for several weeks. Then she returned, consoled her adopted parents by her presence for a while, and again departed without giving the least indication of how she employed her time. Nor did they ask her, confident that all she did was prompted by that most powerful of all loves—the love of a sister supplying a mother's place.

'The truth was, that she had hired a number of houses in various parts of Cairo, and visited them alternately, in order to pass the evenings singing on the terrace. Despite the failure of the researches made by Kariades, she remained persuaded that Zoë was in Cairo, and hoped that the echoes of her magnificent voice might at length go as messengers into the depths of every harem, and make known her presence. The whole city was by turns rendered happy by the Silver-Voice; but as it was heard now in the Citadel, now near the Bisket-el-Fil, anon at the Bab Zuweilah, men began to think strange things. It was curious, indeed, to hear the speculations of the gossiping Turks about this ubiquitous voice. I remember laughing much at the wise arguments by which one of them, who had heard the fable of Memnon's statue, demonstrated to me that the sound came from no human organ at all, but was produced by the rays of the setting sun striking in some peculiar way upon the minarets.

'A whole year passed in this manner without bringing anything new; but the beautiful patience of the Silver-Voice was at length after a fashion rewarded. Better had it been perhaps for her had her soul been wafted away in some sad song. She was standing one evening, long after the sun had set, filling the air with her plaintive notes, and calling, as usual, upon her sister; sud-

denly there rose a cry—a piercing, terrible cry, such as no mortal ever utters but when the sanctuary of life is invaded. At that awful sound the Silver-Voice was struck dumb. She stood listening like a gazelle when it hears the howl of a wolf afar off upon the desert. The wild accents seemed to hang for a moment over her, and then fell into her ear, moulding, as they fell, into the words, "My sister!" How it came to pass she could not tell: over the parapet, along a crumbling wall, across a ruined house, she passed as if by magic, until she fell like a moonbeam through an open window, and saw upon a rich couch the form of an expiring woman lying. It was her sister Zoë. The blow had been too well aimed: it had gone to her heart; and the life-blood bubbled rapidly forth between her white fingers, which she pressed to her side. One eloquent glance, in which eyes mingled with eyes, whilst lips hung upon lips, was exchanged. There was not time, neither was there need, to tell their stories in any other way. The dying woman made one effort, pointed to a cradle that stood under a cloud of gauze curtains in a corner, then smiled a long impassioned smile of recognition, of gratitude, and of love, seemed to wander a little back in memory, murmured some pleasant sounds, and was still.

'The Silver-Voice rose solemnly, and casting her eyes about, beheld a man crouching in a corner weeping. "It is all over!" she said. "All over!" he replied, looking up. But I will not weary you with the scene in which the wretched man, a Greek renegade, related how he had bought Zoë—how he had loved her, and made her his wife—how they had travelled in far countries—how he was jealous, ever, as he acknowledged, without cause—and how, in a fit of madness, he had slain the mother of his child. When he had finished, he led the bewildered Silver-Voice to the cradle, and thrusting aside the curtains, disclosed the miniature counterpart of Zoë, sleeping as if it had been lulled into deeper slumber by its mother's death-cries. Then stealing towards the corpse, with the step of one about to commit a new crime, he snatched a hasty kiss, and rushed away. What became of him was never known. Silver-Voice performed the last duties for poor Zoë, and took the child under her care. Since that time she has almost always continued to live in the house from the roof of which she heard her sister's cry; and though apparently rational in everything else, never fails to go up each evening and sing the song she used to sing of old, though in a more plaintive and despairing tone. If asked wherefore she acts in this wise, her reply is, that she is seeking for her sister Zoë, and nobody attempts to contradict the harmless delusion. Several years have now passed away since this event, and the child has become a handsome boy. You may see them both at the church to-morrow.'

I thanked the worthy papa for his story more warmly perhaps than he expected. He had been as much pleased by narrating as I had been by listening; but he was not very particular about the quality of his facts, and unintentionally made me do penance for the excessive pleasure I had experienced by giving me an account—two hours' long, and with equal unction—of a tremendous controversy then raging as to the proper form of electing the sub-patriarch of Cairo. It would have been ungrateful to interrupt him, although there seemed no end to his garrulity. Fortunately two or three people at length came in, I compromised my dignity as a heretic by kissing his hand, and escaped, to turn over this curious story in my mind. Next day I went to the Greek church, and saw a melancholy-looking face through the bars of the cage-like gallery in which the women sit. I am quite certain it was that of Lady Silver-Voice, but no one whom I asked seemed to know her. The boy did not show himself. It was my intention to go another Sunday, and observe more accurately, for I really felt a deep interest in this unfor-

tunate lady. But other thoughts and occupations came upon me, and it was only by an accident that, as I have said, these circumstances recurred last night to my mind.

## NOTES FROM THE NETHERLANDS.

### THE PAUPER COLONIES.

I HAD scarcely finished breakfast the morning after my arrival at Frederickssoord, when the promised guide entered the room and announced himself. He had not long to wait, for my expectations were lively. I was about to witness the working and results of an endeavour to elevate human beings in the social scale—physically, without doubt; morally, perhaps; if both combined, then so much the better.

Many readers will remember that the first quarter of the present century was marked by times of great distress and privation to the classes immediately dependent on trade and labour, except to those directly engaged in making a profit out of the war. In common with other countries, Holland felt the pinch severely: for there pauperism threatened, as it has threatened in England, to swallow up all the available resources of public and private benevolence. The magnitude of the evil induced a remedy. A society was instituted, composed of voluntary members in every part of the kingdom, who agreed to pay a small weekly or annual contribution. So many thousands joined the new *Maatschappij van Weldadigheid* (Society of Benevolence), that the trifling amount of individual subscriptions was made up for by the bulk of the aggregate. Their project was to remove the surplus mendicancy from the towns to the country, and if possible make it support itself. A most praiseworthy scheme! Accordingly, land was purchased where it could be had cheap, portions of the dreary heaths lying in the provinces of Drenthe, Overijssel, and Friesland; and thus a double reclamation would have gone on at the same time. Certain parts of the land were cleared and cultivated, trees planted, houses built, cattle and implements provided, and the first colonists installed. These were such families as had been most burthensome in the parishes from which they were sent; many of them knew as little of agriculture as they did of algebra. It was an interesting question, whether those who had heretofore ranked among the incapables would then succeed in removing the first syllable from their designation. By their labour, as was believed, they would be able to repay all the outlay for their settlement, and also to afford such a rent as would reimburse the directors for maintenance, and enable them to keep the machinery in motion, and gradually to extend their operations. Such a project appears to be hopeful as well as rational; and could the managers have borne it to a successful issue, theirs would have been the honour and satisfaction of resolving a difficult problem—one that in all ages has occupied the attention of earnest and of enthusiastic thinkers.

Immediately on leaving the tavern, I saw that what seemed to me an endless avenue in the twilight of the previous evening, was the road which runs in a straight line beyond the limits of the colony to Vledder. About fifty yards to the right of this track you see one of the long, low, gabled cottages peculiar to the district; a short distance farther stands its counterpart, and others still farther. Imagine three or four roads parallel, a furlong or two apart, with similar houses ranged along them, and each situated amid small and well-cultivated fields of wheat, barley, potatoes, or peas, and flanked by a garden displaying a goodly store of vegetables and flowers, with patches of grass and wild heath-land here and there, connected by numerous paths, and bordered by lines of fir, poplar, and birch—giving the whole a somewhat poor and dusty appearance, and you have a picture of Frederickssoord.



We went first into one of the cottages. To describe one is to describe the whole, as they are all after the same pattern. They are built of brick, and are thatched, with three windows towards the road. There is one large room on the ground-floor, and a chamber above it in the pitch of the roof. The latter descends suddenly behind, and being prolonged some distance backward, forms a low shed, partly enclosed, which serves as a wash-house and scullery, and to shelter the turf and wood-pile, working-tools and implements, live stock and fodder. In the one I visited, the living-room exhibited much neatness and comfort: a good walnut wardrobe stood against the wall; at the opposite side a corner closet, well furnished with crockery; a clock ticked between the windows; and among other miscellaneous articles on some shelves were a few books: these, as I was informed, are supplied by the Bible Society. One side of the fireplace was fitted up as a bed-closet, similar to those seen in farm-cottages in the rural districts of Scotland. The room overhead, which is reached by a ladder from the back, contained three separate bed-places; so that, allowing two to a bed, there was sleeping accommodation for a family of eight. Here the beams and rafters of the roof were whitewashed, so as to give the place a light and cheerful appearance, and the whole house was clean and well-ordered. But the habit or practice of domestic cleanliness is not universal: some of the cottages were unclean and untidy. Each one has a garden about fifty yards by ten apportioned out of the general domain, and these, with rare exceptions, are properly looked after. In some of the plots I saw scarlet-runners carefully staked, and the rows supported by horizontal poles tied across them, besides peas, potatoes, beetroot, lettuce, carrots, &c. The beds nearest to the house generally contained a few flowers; pots of blooming plants stood in the windows; and here and there a creeper clung to the wall, and drooped over the door. The cottagers work in their gardens before and after the regular duties of the day; their fixed hours of labour are from six to six, with an interval of one hour and a half for breakfast and dinner. Water is obtained from wells dug midway between every two houses, and is met with at a depth of from ten to thirty feet.

On first taking possession of their farms, the colonists are supplied with implements of husbandry, seeds, fruit-trees, and a cow and pig. Neglect of the animals or the garden is punished by deprivation, withholding of food, and, in extreme cases, by imprisonment at the Straf colony of Ommerschans or Veenhuizen; but no instance of the severer punishments being necessary had occurred for six years prior to my visit. Thus it would appear that a provision of milk, butter, and bacon, is always secure to the prudent cottager; and, judging from the beehives scattered in the gardens, some among them add honey to their dietary. Such articles as are not produced in the colonies—groceries, candles, soap, crockeryware, &c.—can be bought at shops belonging to the society. There are two to supply Frederickssoord, each managed by a competent person; the prices the same as in the large towns. The sale of spirits and intoxicating drinks is absolutely prohibited.

At the bureau certain ruled and printed sheets were shown to me, from which I saw that an account is opened with each colonist; and on these sheets are entered the weekly debit and credit. Each individual is furnished with six pounds of bread and eighteen *kops* (about five gallons) of potatoes every week—the latter are charged one cent the *kop*, and the bread three and a-half cents the pound. A Dutch cent, it should be remembered, is the fifth of a penny. Besides these items, a charge of twenty-four cents is made for clothing, and seventeen cents entered as cash paid. Thus the actual weekly cost of each colonist to the society is eighty cents weekly; and supposing he

earns not more than one florin, the twenty cents which appear on the credit side of the account go towards paying rent for his house and appurtenances, and to the fund in the *spaar-bank* for widows and orphans, and as a provision against casualties.

Each farm comprises about three acres, of which one-half is brought under cultivation before the tenant takes possession. As I wished to see the first process of reclaiming the land, we went to one of the outlying farms, where half-a-dozen lads were busy digging and trenching. The soil is loosened to a depth of three feet—that which was below is brought to the surface, and the upper stratum, with its thick tough coating of heath, is buried. In this condition it remains for a year, after which it is manured, and planted with potatoes; and in the third year, without any additional manure, wheat, oats, or buckwheat is sown, with seeds of what the Dutch call *brem*—our broom—or *genista*. The latter remains in the ground when the grain is cut, and stands through the winter and the following year, when it is dug in as green manure, and the ground again planted with potatoes. Such is the rotation; one year in four being lost for want of a sufficient supply of fertilising substances. The soil had a yellow ochrey appearance—my conductor called it *ijzer grond*—iron ground. Its purification can only be effected by good drainage. Some oats which I saw—the first crop on new land after potatoes—were so thin and short as to appear scarcely worth the trouble of cutting. If the land were in high condition, produce might be raised for outward markets; at present the whole vegetable crop is consumed in the colonies.

A diligent labourer will trench and clear a piece of ground eight yards square in a week, by which he earns two florins. If, by superior skill or industry, he should succeed in gaining more than the usual average, the whole of the overplus is not paid to him, but 10 per cent. only of the amount; the remainder is applied towards rent and the contingency fund, as above-mentioned. Thus he has the opportunity of becoming a prosperous and independent agriculturist on a small scale; yet, as I was informed, very few of the colonists do this: the majority content themselves with the bare fulfilment of the prescribed routine. In general appearance, allowing for differences of dress, they might be considered as presenting a parallel to thrifty English labourers.

To reach the field we had ascended a long, low slope, which in any but a flat country would have passed unnoticed. Here, however, it was sufficiently elevated to command a prospect over the surrounding level, and enable one to comprehend the plan of the ground. The property here belonging to the society includes about 13,000 acres, on which 450 farms are established in three different localities, within half an hour's walk of each other: they are Frederickssoord, Willemssoord, and Wilhelminasoord. The word *oord* signifies place. They are situated in the three provinces of Overijssel, Drenthe, and Friesland, which here unite their boundaries. The total number of colonists at the time of my visit was 2600.

The farms, as I have already stated, are intended for families; yet no marriages are allowed to take place. If a young couple wish to enter into matrimony, they must leave the colony; and young men are not allowed to remain after the death of the parents, unless on payment of sixty florins. According to the regulations, the numbers are recruited from without, not from within. Families, however numerous, may be admitted from any part of Holland, in ratio with the occurrence of vacancies, or the ability of the society to clear new land, 1700 florins being paid with them on their entry by the contributing members in the districts from which they are sent; and in this way thickly-populated neighbourhoods have been relieved of part of their burthen of pauperism. The deaths do

not appear to be out of proportion with the total population. I could not learn the exact number; but here, in Fredericksord, which has 1000 inhabitants, not more than two deaths had occurred since January, and those were of infants. The number is greater at Ommereschans and Veenhuizen—the latter suffered from cholera. With respect to religious observances, all the colonists are required to attend worship at least once every Sabbath. The Catholics have a meeting-house on the spot; the Protestants go to the church at Vliedder. There are churches for each of these denominations at the Straf colonies, besides a synagogue for Jews at Ommereschans.

Pursuing our walk we came to the weaving-shops, in which eighty boys, women, and girls were at work. The former are employed at the looms until the age of eighteen, when they are put to field-labour. The materials produced are sackings, coarse woollens, calicoes, and checks; the surplus of which, after supplying the wants of the colony, is, by a standing arrangement, purchased by the *Handels-Maatschappij* (Trade Society). And in this way the home colonies furnish coffee and rice bags, and negro clothing, to the foreign colonies in Java and Guiana. Over the largest weaving-shop is the store-room, well stocked, and in excellent order. On the shelves lay an abundant assortment of garments for both sexes, of five different sizes. Jackets, trousers, and petticoats of coarse black fustian; shirts and chemises of a very rough texture; and worsted stockings coarser than Shetland hose. Although it may be urged that such clothing will subserve all the literal requirements of health and comfort, still the quality indicates a low standard, especially for free colonists. Criminals might be made to submit to it until they had earned a better by reforming their character. Besides wearing-apparel, bed-coverings, boots, shoes, and caps, the store-room contained tinware, pots and kettles, iron and wooden spoons and ladles, wheelbarrows, spades, tubs, churns, baskets, brooms, and so forth—all made at one or other of the colonies; chiefly at the penal establishments, where the fabrication of this variety of utensils and implements gives occupation to some thousands of individuals who otherwise would not be able to keep out of mischief.

We next went to the bakery, where the grain grown in the surrounding fields is converted into bread. Eight men are employed: they make 240 loaves of twelve pounds' weight each every day. The colour is very dark, and the quality extremely coarse and heavy. It will not keep good more than a week. English labourers would hardly consider it a favour to be fitted with the colonial garments, and most certainly would they find the eating of the colonial bread a grievous hardship. The loaves are made of rye, simply moistened with water, and baked. From August to May the meal is mixed with half its weight of potatoes; and the bread so prepared is liked better than during the two months when it is all rye.

After this inspection of what might be termed the *physique* of the colony, I felt desirous to observe the moral appliances and resources, and begged to be conducted to the school. This was held in a detached building not far from the weaving-shops, and numbered eighty-five children of both sexes. The system of instruction is the same as that pursued in the Armen Schools—the younger scholars being partitioned off in an apartment by themselves.

'I teach them music,' said the master—'that is, we sing from notes; and we do not neglect geography, grammar, or arithmetic.'

'Is there any difficulty,' I asked, 'in getting the children to attend school?'

'None whatever. On the contrary, they are all glad to come; the singing, in particular, has great attractions for them.'

'What punishments do you inflict?'

'They very seldom need punishment, and when they do, I just keep them in to conjugate a verb.'

There must be something good, I thought, in the method or matter of the training which fulfilled its purpose by means so mild, and effected moral results with so little of physical coercion.

The walls of the room were hung round with maps—an important aid in imparting knowledge, which, as far as I have had opportunity of observing, is extremely rare in village schools in England. One never sees a map-hawker in this country; and yet on the continent, and in the United States especially, they are numerous. During our conversation the master, now middle-aged, told me that he came first to the colony a poor boy nine years old, and went through the usual routine of work until he attained his present position. About three years ago he began a course of self-instruction in French, and, by dint of practice, came in time to speak that language with much facility. Several of the elder scholars were also beginning to learn French—a fact worthy of consideration, as the acquirement will open to them a world-wide literature in addition to their own, and so enlarge their minds with more abundant knowledge.

The look of the majority of the children was unintellectual: the general contentedness of expression seemed passive rather than active. How wise is the arrangement which raises up men willing to devote themselves to the unvarying routine of a teacher's duties, which endows them with patience to bear with apathy and indifference! Society, as yet, does not appreciate them at their full worth. While standing at the end of the room, with the ranks of faces before me, I was struck by some four or five which did not seem cast in the same mould as the others. On inquiry, I learned that they were the children of the director, the eldest an intelligent lad of about fourteen. They were, he informed me, ten in family; 'and we all come here in turn,' he said, 'brothers and sisters, and stay until it is time for us to go away to a higher school.' It was gratifying to see this instance of what an Englishman cannot fail to observe in Holland—the approachableness between different grades of society.

From the school we took a leisurely stroll through a plantation, which afforded a welcome shelter against the scorching heat. The guide was particularly communicative, and talked of many subjects besides those connected with his immediate duties. He spoke in high terms of the director. 'Everybody praises him,' he said; 'he has been here twenty-two years, and the longer he stays the more is he beloved. If the first directors had been as honest as he is, the colonies would have been more prosperous than they are.'

'What is the reason,' I inquired, 'that establishments apparently so well conducted are not self-sustaining?'

'Ah, monsieur, to give all the reasons one would have to go over the history of the place for the past thirty years; but the chief is, that the people, when located on their little farms, are too careless about paying their rent, or doing work enough to pay back the cost of their settlement.'

This was a disappointing conclusion, but I cannot venture to gainsay it. The director afterwards confirmed it in a conversation that we had together at the tavern, where he kindly called to talk the subject over. From this I gathered that the society would not be able to continue its operations were it not for an annual grant of money from the government. A portion of the sum is an allowance for work done by the colonists; and, considering that the mendicancy of the country is kept at honest work in the Straf colonies, it is but fair that the state should bear a portion of the charge of maintenance. Much better to pay money to keep paupers at labour, than to support them in forced or

voluntary idleness. At the same time, I regretted to find that the much-talked-of pauper colonies of Holland do not, after so many years trial, pay their expenses; while the best that can be said of them is, that they keep poor people alive in a deadening species of dependency. In short, they do not, in my opinion, offer an example to be followed. Pauper labour, on a great self-supporting scale, with a tendency to elevate the character, must seek for other models. I was recommended by M. Konynenburg to see other two establishments. 'If you have not time to see both,' he said, 'at least go to Ommerschans. There you will see a more widely-developed system of management than here; the farms for the hundred free colonists who are settled there are ten or twelve times larger than ours. And besides, you will see what we do with the beggars.'

'How many of that class,' I asked, 'are you entertaining at present?'

'At the two places, Ommerschans and Veenhuizen, 4400. In 1847, when prices were high, the number was 6000; so that, judging from these barometers of pauperism, the country is now pretty well off.'

At the colony of Veenhuizen there are also one hundred free families, who cultivate the larger farms, besides the pauper establishment and orphan house. The number of inmates of the latter is 1200, the greater part being foundlings from Amsterdam. In certain respects the social arrangements of the Dutch are such as to favour illegitimate births. Children are received from the city establishments at the age of seven, are instructed in the schools, taught a trade, and retained on the establishment until their twentieth year, when the regulations require them to leave. During six weeks after their departure they are maintained at the cost of the society: at the end of that time, whether they have found employment or not, they are dropped; no further thought is taken for them. Most of the young men enter the army, which perhaps derives its greatest number of recruits from this source; and the girls go into service as domestic servants, if they can—if not, they do worse. In this way, as it appeared to me, the evil professedly sought to be remedied is perpetuated.

I mentioned my thought to the director. 'What can we do?' he replied; 'we are not omnipotent. We cannot undertake to guarantee work to all who leave our colonies; we must defer something to individual responsibility.'

'True,' I answered; 'but do you take sufficient pains to inspire or cultivate a spirit of self-reliance? Pauperism, like slavery, has a debasing influence, and those to whom it has been familiar all their lives are little likely to rise in the scale without guidance. You must either force them to do right, or put it out of their power to do wrong.'

The reply was an admission that such an aim, even if practicable, did not come, except to a limited extent, within the society's plans. 'We have to feed as well as reform,' said M. Konynenburg; 'and keeping folk alive, and in working condition, seems to be the first duty, and this can only be done with money. If that fails, all goes wrong.'

'Again true,' I answered; 'but when you consider that the charities of Holland are notorious, that the enormous sums which you lavish every year in benevolence tend mainly to foster mendicancy and coddle idle people into helplessness, you will perhaps allow that money is not the supreme agent. Let a genius arise with an efficient plan for draining the Zuyder Zee, and cultivating your myriads of acres of heathland, and you will find a moral power at your disposal beyond that of money.'

'Meantime,' replied the director, 'we do the best we can. When M. Dupétioux was here from Brussels, he observed that our colonies were more successful than those in Belgium. There the colonists have sunk

into a condition scarcely better than that of serfs in the feudal ages. However, you may stay here as long as you will, six months if you like, and observe what you please, and walk about everywhere just as it suits you. And when you leave, do not fail to go to Ommerschans.'

'Shall I not need a letter of introduction?'

'No; go to the director, and say that you have been here—that will be sufficient. He will show you everything.'

A tourist out for a brief holiday is compelled to snatch hasty glances where he would gladly have time for studious observation. This was my case, and one day was all that I could spare for Fredericksoord. I waited till five o'clock, in hope that the temperature would then have become more agreeable for walking. The old landlady, when I paid my bill, complimented me very undeservedly on my acquirements in Dutch, assuring me that I was the first foreign traveller she had seen for many a day who could make himself at all understood. This duty discharged, I once more lent my shoulders to the knapsack, and started for Meppel.

The route was not the same as that by which I came: it led across the widest plains my eyes ever beheld, on which in many parts troops of haymakers were busy in all stages of their odoriferous task. In the distance a dark and dreary-looking slope rose before me: it was the same which I had crossed more to the westward the day before. On these extensive flats it is as easy to deceive one's self regarding distance as at sea, and I was long in reaching the rising ground over which my road lay, after it seemed but half a mile further.

## GLASGOW IN THE LAST CENTURY.

### FIRST ARTICLE.

[The city of Glasgow cannot justly be considered as a subject of only local interest. It is the second city of this great empire in point of population—probably in industry and its results also: the best and the worst features of our present social economy are there seen in the most striking light. The most remarkable circumstance respecting this great city is, however, its rapid rise and progress. It has advanced from about eighty to three hundred and eighty thousand inhabitants since the beginning of the present century! It has now as many Irish immigrants as it possessed of every kind of population at the beginning of the reign of George III.! Accordingly, the reminiscences of old people in Glasgow are exceedingly curious; connecting, as they do, the present age of intense activity and metropolitan hugeness of population with a time when the place was comparatively a village. Here, indeed, we must correct ourselves, for Glasgow has not, since early ages, been a village. It was in all modern times a small university town, with a system of mercantile enterprise engrafted upon it. Thus, what we look back upon in its old social state is fully as dignified as anything which we can trace in its present condition—dignified, yet comparatively simple and familiar. In those old days, as now, there were men of learning in the College, and men of consequence on the Exchange; but they were fewer, their peculiarities came more strongly out, and they were more under each other's observation. Of their habits, too, many were of a nature of which we see little trace in modern society. It is thought that a few anecdotes of the characters and manners of the city in past times, which we derive from an individual of mature years, belonging to the upper class of citizens, may be perused with interest beyond the sphere to which they refer.]



Dr Smollett, who received his early education in the College of Glasgow, and was apprenticed there to a surgeon, revisited the city in 1765 or 1766, and has given the result of his observations on it in his excellent novel of 'Humphry Clinker'—perhaps the most ingenious of all his writings. According to this author—and from his personal acquaintances and connections: he had the best means of information—Glasgow at this period was a 'perfect beehive in point of industry.' The following account which he gives of one of the leading merchants will show the great extent of business carried on by a few individuals of this comparatively small community:—'I conversed,' he says, 'with one Mr Glassford, whom I take to be one of the greatest merchants in Europe. In the last war, he is said to have had at one time five-and-twenty ships, with their cargoes, his own property, and to have traded for above half a million sterling a year. The last war was a fortunate period for the commerce of Glasgow. The merchants, considering that their ships bound for America, launching out at once into the Atlantic by the north of Ireland, pursued a track very little frequented by privateers, resolved to insure one another, and saved a very considerable sum by this resolution, as few or none of their ships were taken. You must know I have a national attachment to this part of Scotland,' &c.

The branch of commerce in which Mr Glassford and others realised such large fortunes was the tobacco trade; at that time, and for some years afterwards, till the breaking out of the American war, the great staple of the trade of Glasgow. This trade is said to have taken its rise from very small beginnings. The first adventure which was sent from the Clyde to Virginia was, it is reported, put under the management of the captain of the vessel, who acted also as supercargo. This captain was a shrewd man, but totally unacquainted with accounts. Being asked, on his return, for a statement of his management, he said he had none to give; 'but there were the proceeds,' producing at the same time a large *hoggar* (stocking) filled with coin. The adventure had been successful; and the parties interested in it conceiving that if an uneducated man had done so well, one versant in figures would do still better, sent out a second shipment of goods, with an experienced accountant as supercargo. This person, when he came back to Glasgow, rendered a beautifully-made-out account to his employers—but there was no *hoggar*.

This new branch of trade, which had been only opened up to Glasgow since the Union, gradually increased, and was pushed with so much vigour as to excite the jealousy of the English merchants, who looked on the Scotch as interlopers, and used every means to crush them in the bud. At length, however, the perseverance of the Glasgow merchants overcame all obstacles, and that city became the great emporium for the tobacco trade in the kingdom.

At a certain hour of the day, the principal merchants to whom we have alluded were accustomed to assemble on a privileged walk, arrayed in scarlet cloaks and bushy wigs, where they strutted about with as much assumed dignity as a senator of Venice pacing the Rialto; and wo to the luckless plebeian who then ventured to come betwixt the wind and their gentility! The master tradesmen, who were in the habit of receiving their orders, were obliged to take their stand on the opposite side of the street, from whence they

endeavoured to catch the eye of their employers. From the following anecdote, communicated many years since by an old American merchant, it would appear that the foreign mode of salutation was then in fashion. A certain tobacco lord, who had enjoyed the double honour of being at the same time Lord Provost and M.P. for the city, was familiarly known under the appellation of *Provost Cheeks*; and besides the peculiarity of visage which had gained him this sobriquet, was gifted with an immense capacity of mouth, extending from ear to ear. This dignitary was no small man on the *plainstones* (or pavement) opposite King William's statue at the Cross, where the walk in question was situated. He was complaining one day of 'some d—d fellow' (swearing was then in greater repute than it is now) 'who had come up to him on the walk, and, will he, nill he, bussed him on both sides of the face, slaving him with his filthy saliva.' 'If I had been you,' said his friend, looking significantly at his mouth, 'I would have bitten off his head!'

Another well-known provost of Glasgow, who afterwards went to London, and became a most active and efficient police magistrate there, was standing one day on the same privileged ground chatting with the Rev. Mr Thom, minister of Govan, a shrewd but sarcastic observer, when a ragged little urchin had the temerity to ask his lordship for an alms. The dignitary replied with a growl, and the boy was running off, when Mr Thom stopped him with, 'Stay, laddie; let me see thy face: thou's a bit decent callant enough. Here's a bawbee for thee; ye'll maybe be provost of Glasgow yet.' The provost himself had been of humble origin.

This gentleman, before he left Glasgow, was considered a very precise person. One story of him was well authenticated, and often repeated. Scolding a clerk in his office one day for some trifling blunder, he softened a little towards the close of his lecture, and said, 'Well, I believe I must forgive you for this time; *I myself was once guilty of a mistake.*' Like many *parvenus*, this provost was very fond of good living, and had expressed to some one the peculiar relish with which he ate his dinner from china dishes. A bitter old lady, to whom the observation was repeated, and who knew his family well, said, 'Cheeny, quotha; set him wi' cheeny! I mind his mother taking her dinner—and that was a herring—aff a peat, and when she wanted anither plate, she just turned the tither side o't!'

The Rev. Mr Thom, whom we have just introduced to our readers, seems to have had a sovereign contempt for civic authorities of all kinds. A portly magistrate having, one fine Sunday in summer, found his way to the parish church of Govan, overcome by the heat of the weather, fell fast asleep during sermon. In the middle of the discourse, a dog which had got into church most inopportunistly set up a howl. 'Put out that dog,' said the minister: 'put out that dog instantly—he'll waken a Glasgow magistrate!'

I have mentioned the exclusiveness of the merchant-grandees at this period; but there was one of their customers who was not to be daunted, and who kept 'the crown o' the causay' with the best of them. This was a grocer named Robert M'Nair, a shrewd, sagacious man, who knew his own interest well, but, in an age of eccentric characters, pursued his objects in a manner quite his own. A sign-board above his shop had the names, Robert M'Nair and Jane Holmes (his wife), inscribed in large characters; and all his business transactions, which were extensive, were under this firm. Like many of his neighbours of that day, he appears to have had a taste for litigation, and was occasionally before the 'fyfteen' (Court of Session). One of his causes, which had been long depending, was

one day called for trial. Robin, as he was usually called, was in court himself, but no counsel for him. 'Where is your counsel, Mr M'Nair?' said the judge. 'My Lord,' said M'Nair, 'I have no counsel. The cause has been twenty-one years in court. It is now of age, and should be able to take care of itself.' An old gentleman who told me this story remembered Robin well. 'The law-plea,' he said, 'was at last decided in his favour.'

There being little competition among the grocers in those days, and Mr M'Nair and his spouse, Jane Holmes, living very frugally, he amassed by degrees a very handsome competency. A lot of ground, on which he had set his heart, having been offered for sale by public auction, he purchased it, and built a stading on it, which, in honour of his better half, he called Jeanfield. When his name was given in as purchaser, he was asked as usual for his security. 'I have no security to offer,' said Robin; 'Jean Holmes is not here, but here's her pouch!' at the same time throwing down an immense pocket, used by the goodwives of the time, full of bank-notes, with which he paid for his purchase.

Robin, when he had become well-to-do in the world, took it into his head to give an entertainment to all the merchants with whom he had dealings. He was a good customer, and most of them accepted the invitation. When dinner was served up, they found that nothing had been provided for them but herrings and potatoes. Accustomed as they were to the good things of this life, we may suppose that the guests looked rather blank at this sorry fare; but there was no remedy. When all of them had been helped, and were about to commence, Robin said, 'Gentlemen, this is the way in which I made my money; follow me, and I will show you how I mean to spend it.' He then led the way into another room, where they found an excellent dinner, set out with all the delicacies of the season, and, what some of them would relish as much, with the choicest wines which could be procured.

About the middle of last century Glasgow was a pleasant city of habitation, even externally. Arkwright, whose invention of the spinning-jenny has effected such a revolution in the manufactures of the country, was then a barber's apprentice. The dense volumes of smoke which, perpetually vomiting from the cotton-mills, gas-works, and numberless manufactories, hang like a lowering cloud over the capital of the west of Scotland, poisoning the air by its mephitic influence, were then unknown.\* The atmosphere was as clear and bright as in a country village, or as you see it in some of the smaller towns in Belgium, to which, in its gable-end houses, fronting the streets, Glasgow at this period bore no small resemblance.

Several of the mansion-houses of the first-rate merchants of Glasgow at this period were built in a style of sumptuous magnificence, greatly superior to any private dwellings which have since been erected in the city. They were generally surrounded with fine gardens, thus forming a 'rus in urbe.' The immense rise which has taken place in the value of ground in Glasgow, is the reason that, one after the other, these fine houses have been sacrificed to the wants of a continually-increasing community. One of the last which was taken down was the very fine mansion-house in Queen Street, built by Mr Cunningham of Lainslaw, a Glasgow merchant, after the model, it is said, of a palace at Rome. It was latterly purchased by the Royal Bank of Scotland for their

branch established here, and afterwards disposed of by them as a site for the Royal Exchange. The Royal Bank's present office is situated in the ground which in days of yore was part of Mr Cunningham's garden—the remaining space round the Royal Exchange being filled up by a square of very substantial shops and warehouses, built by the Royal Bank Company, which no doubt that wealthy establishment have found a profitable investment. 'Ex uno disce omnes'—all the old houses of the Glasgow patricians have disappeared from the same cause.

The great value of such houses, even in the times when they were built, may be estimated from the heavy damages adjudged to Mr Campbell of Shawfield, the member of parliament for Glasgow, whose house was destroyed by a riotous mob in 1725, in consequence of his having voted for the extension of the malt tax to Scotland. The sum was £6400, besides £2600 for other damages.

The style of life in the middle classes was very different. The bulk of the inhabitants, including many who had prospered considerably in the world, dwelt in flats—that is, floors of large houses, denominated *lands*, such as the Trades' Land, Gibson's Land, and the like. In one of these, Donald's Land, opposite the Tron Church, Sir John Moore, the 'Hero of Corunna,' first saw the light; and the fathers of many of the most distinguished citizens who were destined to make a figure in the world—of Sir Thomas Munro, Kirkman Finlay, and many others—had no better dwellings. As might have been expected in a rising mercantile community, time was precious, and the hours of the citizens generally were very early. The maxim inculcated on the rising generation was—

'He that would thrive  
Must rise at five!'

and their fathers enforced the rule by their own example. It is recorded that three leading merchants had made an appointment to meet each other at five o'clock on a winter morning, for the purpose of examining their books, and striking a balance-sheet. Two of them had met while the clock was striking, and the third, as the story goes, made his appearance with his *bowat* (small lantern) 'just as the last stroke of the bell had chappit.' The same method was pursued by some of the merchants till a much later period in the century. Thus the late Mr Carrick, one of the most successful bankers in Scotland, and who realised an immense fortune by his own industry and good management, regularly as the balance-day came round—some day, I think, in July—was seen, to a very late period in his life, working most assiduously at six o'clock in the morning, surrounded by his clerks, each labouring in his own department to bring out the results. Mr Carrick's maxim was, that one hour in the morning is worth two in the afternoon. The good effects of this orderly method were exemplified in his own case: 'Carrick on the Promises,' as his promissory bank-notes were quaintly called, had a circulation all over Scotland, particularly in the Highlands, to which they were taken by the drovers, and where they were greatly preferred to gold or silver. The writer has himself seen notes of the Ship Bank—of which Mr Carrick was cashier and principal partner—originally issued in 1775, and not returned for payment till nearly thirty years afterwards—thus, at the rate of compound interest, more than doubling their value. So much for the profits of Scotch bankers at this period.

The usual hour of dinner was two o'clock, and for fashionable parties an hour later. Tea at six o'clock was a very sociable meal. The best families in the city used then to meet each other, to chat over the occurrences of the day; and after a hand at whist, or a round game of cards, generally concluded with a hot supper, which, like the supper of the Romans, was in

\* The smokiness of manufacturing towns is surely susceptible of some degree of remedy, if we can attach any consequence to the results of an arrangement applied to the furnaces of the tolerably large boiler used in printing these sheets. It certainly prevents smoke entirely, and that without any drawback or difficulty whatever, the simple principle being a gradual and regulated introduction of the coals. We trust soon to be able to return to this subject, with details as to saving of fuel, &c.—Ed.



fact the principal meal. As the streets were badly lighted in winter nights, a servant-girl, very trigly arrayed, like Bailie Nicol Jarvie's Mattie, generally preceded her master, mistress, and family, bearing a small lantern. This practice was continued to a very recent period in Glasgow—indeed till the introduction of gas-light made it unnecessary. The celebrated Dibdin—the composer of those admirable sea-songs which infused so much spirit into our gallant tars during the last war—at his visit to Glasgow about the beginning of this century, was struck with the peculiarity which I have mentioned, and introduced it into the amusing fund of anecdotes with which he was accustomed to vary his musical entertainments. 'In other places which he had visited,' he said, 'when the company were departing, the usual order to the servant was, "John, bring up the curlicue," or, "John, order up the carriage;" but in Glasgow it was, "Whaur's the lass and the lantern?"'

Such was the usual temperate mode of life of the respectable citizens of Glasgow. But all rules are liable to exceptions. Occasionally they would take what they called a 'screed,' and then, to be sure, all the rules of temperance were thrown to the winds. When a jollification had been resolved on, after the ladies, if there were any in the party, had retired, the first thing done by the landlord was to lock the door, and put the key in his pocket. Punch was then, and long afterwards, the favourite beverage; it was, according to a song of the day, 'the liquor of life,' and wo to the luckless wight who failed to do justice to the toast! As the glass went round, coarse wit and broad humour had their full swing, like Counsellor Pleydell at his high-jinks, till at last few of the company were conscious of what either themselves or their neighbours were about. It is a well-authenticated fact, that at a joyous meeting of this kind, where the Laird of Garscaddan—an estate in the neighbourhood—was present, some one made the remark to the person who sat next him, that 'his neebour Garscad was looking unco gash' (grave). 'Deil mean him,' said the other, 'to look gash, he has been with his Maker for the last half hour!' 'And why didn't you speak out?' 'Ou, I didna like to spoil gude company!' was the reply.

This occasional relaxation of manners was perhaps never seen to a greater extent than in what is now very properly accompanied with suitable feelings of solemnity—a funeral.

I have often heard the story, that a Dumbartonshire laird—connected perhaps with Glasgow—at the *dreije* given in honour of his mother, where, as in duty bound, he presided—delighted with the mirth and good-humour of the party, and totally forgetting the occasion of the meeting, proposed as a toast—'May ne'er waur be amang us!'

In the seventeenth and part of the eighteenth centuries, claret seems to have been the favourite wine with the wealthier Glasgow citizens, and those of the middle class who could afford it; and the only perquisite of office afforded to the Lord Provost was a certain sum for a hog'shead of claret, that he might entertain therewith the chief citizens. After the trade to the West Indian colonies had been opened up to the Scotch merchants by the union of the kingdoms, rum-punch gradually superseded claret and wines of every description, and maintained its place for many long years as the favourite beverage of Glasgow. Brydone, the celebrated traveller, tells a good story of this mixture. Dining one day with a large party of Sicilians at Agrigentum, where he and his English friends had been regaled with the choicest delicacies, they were asked to make a bowl of punch, which the Italians had often heard of, but had never seen. The materials were at hand: a bowl was made, and so much approved of, that he was obliged to replenish the contents again and again. The Italians preferred it to their own wines, of which there was a

great variety on the table. They called it Pontio, and (alluding to Pontius Pilate) said, 'Pontio was a much better fellow than they had ever taken him for!' 'However, after dinner—I give the words of the lively writer—one of them, a reverend canon, became excessively sick, and while throwing up, he turned to me with a rueful countenance, and shaking his head, he groaned out—"Ah, Signor Capitano, sapeva sempre che Pontio era un grande traditore!"—"I always knew that Pontius was a great traitor!"'

The deceptive qualities of this very pleasant liquor, to which Brydone's unfortunate canon alluded, were quite proverbial among strangers who visited Glasgow for the first time; and it was only the 'auld-used hands,' or, as they were usually called, 'seasoned caaks,' who could stand the debauch of an evening where punch was the only tippie. I remember, many years since, that a party of very gentlemanlike officers belonging to the Cheshire militia, then quartered in Glasgow, dined one day with a gentleman, who, as usual after dinner, made a bowl of punch. The Cheshire men were much pleased with the beverage, but gently hinted at the smallness of the glasses. 'Very well, gentlemen,' said the landlord, 'larger glasses are at your service.' These were ordered; but alas for the pride of England, not one, or two, but several of the gallant soldiers were ere long laid under the table!

Sir John Sinclair, in his 'Code of Health and Longevity,' published many years since, attributes the general good health and long lives of the Glasgow people to their free use of punch, which, unlike immoderate indulgence in wine, was never followed by gout, gravel, or other complaints which he enumerates. It is certainly remarkable that many of the votaries of punch lived to a good old age; and I remember very well often seeing, when a boy, an old West India merchant who had spent the greater part of his life in Jamaica, and who, it was notorious, never went sober to bed; to which, however, he retired at an early hour, and rose betwixt four and five o'clock next morning. This patriarch died about the venerable age of ninety.

The reduction on the duties on foreign wines, which took place some years after the late war, introduced, or rather extended in Glasgow, a taste for these luxuries. Punch gradually became unfashionable, and at length was all but excluded from the higher circles. One wealthy West India merchant, at whose hospitable table the *élite* of the society was always to be found, continued his devotions to the punch-bowl as formerly to the end of his days; and great was his contempt if any younger guest hinted that punch did not agree with his stomach. 'For his part,' he said, 'he had been born before stomachs were in fashion.' This gentleman certainly tried a Herculean constitution as much as any man I ever knew. He was engaged from one year's end to the other in a constant round of dinner parties at home or abroad, and usually concluded the evening with a hot supper, after which the punch-bowl was always introduced. A robust frame of body, early rising, and regular exercise, long prevented the usual effects of such a mode of life from being visible. But 'non omnia possumus omnes': nature will vindicate her rights. One evening, while dealing out his favourite potation to a party of friends, he was suddenly seized with a vertigo (or *whirley*, as it then used to be called), and fell insensible on the table. His friends, knowing that he would be mortally offended were he to find he had been interfered with, prudently waited till he should recover. He did so in about a quarter of an hour or twenty minutes; and grasping the punch-spoon, gave the well-known call, 'Put in your glasses, gentlemen!' as if nothing had happened.

Punch, so long the favourite drink of Glasgow men—high and low—received its *coup de grace* when the Asiatic cholera first made its appearance in this country. It was then interdicted by the faculty, and

has never since recovered favour. 'Stat nominis umbra,' the name only is remembered, and scarcely even that, except by veterans of the old school like myself.

#### THE READER OF THE THOUGHTS.

In Berlin, at the end of the grand promenade 'Under the Linden,' between the Catholic church and the king's palace, stands the well-known Café Belvidere. This is the favourite dining-place for students at the university, junior officers, briefless advocates, patientless doctors, supernumerary diplomatists; in a word, for a host of young men whose embryo fortune does not in the least prevent them from enjoying a good dinner, while it effectually denies them a dear one.

In front of the café, which is entered by a broad flight of stone steps, is a garden surrounded by summer-houses. In one of these were lounging, on a fine summer afternoon some ten years ago, two young men, habitual frequenters of the café. The younger of the two was evidently of the university. None but a student would have worn those long, light-brown, curling locks which streamed over his shoulders, or that beard and moustache of anything but 'formal cut,' whose extent seemed only limited by his powers of vegetation. Nevertheless, the German student at Berlin is no longer the wild apparition of Bonn or Heidelberg. The scornful glance and half-suppressed grin of the dandy of the capital may, on his first arrival, provoke his untamed, almost savage spirit of defiance to more than optical reprisals; but the *Bursche* ends by submitting to public opinion. If he do turn down the collar of his shirt, the linen is at any rate of unobjectionable colour: if his hair be some quarter of a yard longer than is customary, no one can deny that it is often combed, brushed, and even oiled and curled, with considerable attention. In fact he begins to emerge from the natural Bedouin and smoko-beeriform into the so-called civilised state. His hands—red with exercise in scrambling over mountains, gymnasticising, and fencing; browned by exposure to the sun of the valley and the wind of the forests—are cunningly disguised in Parisian gloves, manufactured in the Friedrich-Strasse; his white, sky-blue, or crimson cap, denoting the illegal *Landmanschaft* or club to which he belongs, is replaced by a well-brushed gosamer; the rusty velvet shooting-coat, so remarkably short in the skirts, gives way to an orthodox surtout; and instead of a rapier or a sabre under his arm, may be seen a gold or silver-headed whalebone instrument, neither dangerous nor useful to any mortal man, and which cannot be too soon lost, to save its proprietor the unnecessary labour of carrying it. Such also, outwardly considered, was the student of our sketch; but his pale, thoughtful countenance, and dark, dreamy blue eyes, implied a lofty and imaginative soul; while his fine mouth betrayed in its sombre curves sufferings of more than momentary origin.

His companion, on the other hand, was a little, dark, lively man of some thirty years of age, in the costume of the Royal Guards. Balancing his sabre between his knees, he beat what is vulgarly and inexplicably termed the 'devil's tattoo' on the rustic table before him, while discoursing with apparent indifference, but real eagerness, in an undertone to his companion. Notwithstanding the gay smile that played round his trimly-moustached lips, an almost imperceptible spasmodic contraction of his brows confused, as it were, the general expression of his features, which were delicate without being harmonious, and handsome without conveying much idea of dignity. As he spoke, the student occasionally replied with an equally assumed nonchalance. After uttering a few words, however, his old reflective look resumed its empire over his countenance; and the contraction of his right hand, buried in the bosom of

his surtout, indicated an internal agitation, which would otherwise have escaped the penetration of the keenest observer.

But the eyes which rested upon the two young men were those of no ordinary critic. He was seated in the opposite summer-house, at a distance of some dozen yards. Resting a forehead, darkened by locks of iron gray, upon his wrist, he seemed to shade his eyes from the light with his hand; while, in fact, regarding with deep attention the faces of the student and the officer before him. In a few minutes he rose, after having written hastily some lines with a pencil in a red morocco-covered note-book. Placing a broad-brimmed hat resembling a Spanish sombrero on his head, and smoothing down the skirts of a strait single-breasted frock-coat, green in colour, and antique in cut, he strode leisurely across the garden, tore out the leaf on which he had written from his red morocco note-book, threw it with a slight, but stately inclination to the student upon the table at which he was seated, and disappeared through the door leading to the Linden, without uttering a word in explanation, or seeming to notice the surprise of the two friends at his eccentric conduct.

They caught but one glimpse of a severe and deeply-marked countenance, surmounting a tall, thin, muscular figure, and he was gone.

'What is it, baron?' cried the officer impatiently.

'I can inform you better when I am myself more enlightened,' replied the student, poring intently over the dim and mysterious ciphers.

'Read it aloud, if it be no secret,' said the captain.

'Certainly,' replied his friend, 'as soon as I can make out three words consecutively.'

'It is difficult to decipher, then?'

'Very. Perhaps you will succeed better than I in making out the meaning of the scrawl. Take it,' and the student handed the stranger's manuscript to his companion.

The captain regarded it with a look that changed rapidly from mere idle curiosity to intense anger. With a flushed face and sparkling eye he rose abruptly, overturning his chair in the act, and demanded fiercely, 'Which way did he go? Where is the scoundrel?'

'He passed through that door,' replied the student, pointing with his finger in the direction alluded to.

The captain darted through the portal. The stranger was still visible. He was, however, at a considerable distance, and about to step into a flacre. The captain shouted to him to stop, accompanying this request with an insulting reflection on the courage of the stranger. The latter saw the captain's gestures, if he could not at the distance hear his words. He raised his hat with sarcastic politeness, and entered the vehicle, which soon bore him out of reach of the infuriated captain's threats of vengeance.

'Who is he?' said the captain, returning to his impassable friend, still seated in the summer-house, and occupied in lighting a long meerschaum.

'I do not know,' said the student.

'Did you never see him before?'

'Never,' replied the young baron somewhat abstractedly.

'Let us inquire in the café,' said the captain. 'I am determined to discover his name at all costs and hazards.'

'You forget that you have not yet explained to me the cause of your unusual excitement. At any rate read the paper to me, or let me try again if I can make it out myself.'

'I have lost it in my confusion,' said the captain hesitatingly, casting a quick, scrutinising glance at his friend, whose calm look seemed to give convincing proof of his ignorance as to the contents of the strange missive.

'No—you have it crumpled up in your hand,' said the student with a smile.

'Donner Wetter! so I have!' exclaimed the captain, reddening. 'What a curious thing it is when the mind is absent or the nerves excited! *Blitz noch einmal!*' (one more flash of lightning!) 'I have hunted for my nightcap when it was on my head all the while before now!'

'Nothing commoner,' said the student, seeming not to notice the captain's embarrassment. 'Give me the paper; I am curious to know what roused your bile so terribly.'

'Here it is. Ha! ha! you will be amused at its absurdity.'

The student took the mystic document. He was far too good a decipherer of notes taken at college lectures, in heterogeneous short-hands, old manuscripts of the dark ages, and other curious specimens of calligraphy, to have been really puzzled by the writing of the stranger, which, though sufficiently indistinct, and evidently the production of a foreigner, was nevertheless far from illegible, even to a less practised eye. Consequently, he was already perfectly in possession of the contents of the paper. Notwithstanding which fact, he proceeded to read aloud slowly, and with apparent effort—observing meanwhile, without seeming to observe, its effect upon his friend—the stranger's note, thus conceived and worded:—

'HERR STUDIOSUS—Cassandra prophesied in vain, and Troy fell. She was wise, and they called her mad. What I reveal to you, unerring science teaches.

'Beware of the man beside you! He is a traitor, and his counsels are delusions! His lightest hint may be a snare, and his most friendly offer of service a deadly injury!

'Wiser than the Trojans, be warned in time by

A READER OF THE THOUGHTS.'

'Did you ever read such monstrous and impertinent nonsense?' cried the captain.

'*Nur ruhig!* (only be calm); it is merely carrying a practical joke a little too far,' replied the student, laughing. 'The idea of your betraying me—giving me delusive counsels—injuring me by pretended services! It is preposterous!'

'A reader of the thoughts indeed!' said the captain, delighted at his friend's careless confidence. 'Why, what were we thinking of, and talking of, both of us? Mere bagatelles!'

'Mere bagatelles!' repeated the baron.

'A casual discussion about a pretty girl,' resumed the captain. 'A fine occasion, truly, for all the Machiavelian plottings this old conjurer would feign to have read in my heart! He did well to run away, or I would have made him swallow his words, in the literal sense, paper and all. He shall do it yet, if ever I catch him!'

'You may catch a Tartar,' thought the student as he mentally compared the tall figure of the stranger with that of the irate little captain, and added aloud—'I shall always laugh when I think of this droll adventure. By the way, I have a lecture to attend at four, and my watch only gives me five minutes to reach the university; *au revoir!*'

'*Au revoir!*' replied the captain; and the student entered the café to seek his portfolio, without which no German student enters a lecture-room.

As he went out he met the landlord; and after describing the stranger, demanded whether his name was known at the café.

'Oh yes,' replied the landlord; 'he dines here almost every day, generally at a late hour, and has grand discussions with the Herr Doctor Matthesius Weitstrecken, who is, as you know, professor extraordinary\* of the philosophic faculty at the university.'

\* That is, supernumerary without fixed salary, and living on hope, literature, and the chance of subscribers to his courses of lectures.

'Who is he, then?' rejoined the student. 'I am interested in making his acquaintance.'

'Why, they say, Herr Baron, that he is a gentleman from Scotland; and that, as a physiognomist, he beats somebody whose name I cannot at the moment'—

'Lavater, perhaps?' suggested the student.

'Yes, that's the name,' said the landlord—'beats Lavater hollow. That's it! And his name is Herr —: that's the name as near as I can pronounce it.'

'Thank you,' said the student, as he hastened off to his lecture, well resolved not to despise the warning of the stranger, and to dine *after* the lecture on the morrow. He even caught himself reflecting on the curious ways in which nature writes her secrets on material forms during a discourse by a great transcendental transcendentalist, which amply demonstrated that everything and nothing were identical; and that black and white were only the same idea at bottom, rendered contradictory by the absolute unity of their elementary principles. The student, who was at least as great a metaphysician as his master, lay awake all night pondering over the astounding fact, that a strange Scotchman should discover at a glance what all his profound analyses of human nature, and the primitive elements of thought, had left him utterly blind to.

Within three days after his eyes had been thus opened he knew all. The captain's vague innuendoes and dark hints as to the past and present conduct of the Geheim-Rath's (secret state-counsellor's) daughter were all explained. His eagerness to dissuade the baron from ruining himself by marrying an extravagant, and whatever report might say, portionless bride, were fully accounted for. The captain had made the attempt to supplant him, after having, as he believed, hopelessly embroiled the student with his mistress. The young heiress, forewarned of his perfidy, had rejected the offer with suppressed contempt; and Hugo Baron von Reichenheim was betrothed to the object of his long-cherished dreams, and subsequently popular poem.

Within three months he had taken his degree, and invited the strange professor of physiognomy to his wedding. Whether the captain ever made the professor eat his written words, as threatened, we never heard. But as the physiognomist in question was our intimate friend, and never mentioned the circumstance, we suspect the valiant guardsman of not having kept his promise to the letter.

#### GAS-LIGHT—ITS INVENTORS AND IMPROVERS.

WE believe that the daily applications of science to economic purposes would excite a greater degree of interest, and attract the attention of a larger portion of the community, if the nature and history of such discoveries were more familiarly known. In this remark we do not refer to discoveries in science, properly so speaking; these require, to be appreciated, a certain acquaintance with the subject to which they belong, which is perhaps only possessed by those who have seriously engaged in its study. To the purely scientific investigator, the attainment of knowledge is the aim, and the discovery of a new fact or principle is his reward. Such men are the pioneers in the march towards physical improvement, though they may be themselves unconscious of their mission; and the facts which they are the means of bringing to light, while they possess a special value in as far as they contribute to the extension of knowledge for its own sake, have also a special interest for those who devote themselves to such acquirements. It is not in this light, however, that we regard them at present. Apart from the special importance to which we have alluded, the facts of science are often fraught with



valuable applications to the useful arts, which may not happen to be followed out to this end by the cultivator of science alone: the economic powers which they contain are often left to be trained into service by more practical men, who are usually stimulated to the task, as well perhaps for their own profit as for the benefit of the public.

It is a common saying that great discoveries are often made gradually, the progress of knowledge leading slowly but surely towards them; and the remark is peculiarly applicable to many of the useful arts. A happy arrangement is often attained at last, not so much by the labours of one individual, as by a succession of inventors, to whom it is difficult to apportion the credit which each may justly claim. To illustrate these views, and with the hope of exciting the interest of our readers in a subject of considerable social importance, we propose to lay before them a short account of the history of gas-making, to which our own attention has recently been directed, by a process which promises to be a valuable contribution towards the cheap production and an extended use of this useful article.

The first notice of the artificial production of an inflammable air from coal is to be found in a letter from the Rev. Dr John Clayton of Kildare to the Hon. Robert Boyle, who died in the year 1691. In this letter, published in the 'Philosophical Transactions' for 1739, he states that he distilled coal in a close vessel, and obtained abundance of gas, which he collected in bladders, and afterwards burnt for the amusement of his friends. Other experimenters, among whom Bishop Watson is conspicuous ('Chemical Essays'), confirmed Dr Clayton's discovery; and the properties of coal-gas, and the method of preparing it, thus became well known to chemists.

The idea of applying this air for purposes of illumination seems to have first occurred to Mr Murdoch—an engineer residing at Redruth in Cornwall.\* In the year 1792 he commenced a series of experiments on the gases obtained by the action of heat upon coal, wood, peat, and other inflammable substances, and actually prepared coal-gas on a scale sufficiently large to light up his own house and office. Five years after, while living at Cumnock in Ayrshire, he again erected a coal-gas apparatus. In 1798 he was engaged to put up his apparatus at the manufactory of Messrs Boulton and Watt, Soho, near Birmingham, where he continued to experiment, with occasional interruptions, until the year 1802. It does not appear, however, that much attention was excited by these first efforts at gas-lighting, except among a very few scientific individuals, until the general illumination at the Peace of Amiens afforded opportunity for a more public display. On this occasion the front of the manufactory was brilliantly lighted up by the new method, and it at once attracted the wonder and admiration of every one who saw it. 'All Birmingham poured forth to view the spectacle; and strangers carried to every part of the country an account of what they had seen. It was spread about everywhere by the newspapers; easy modes of making gas were described; and coal was distilled in tobacco-pipes at the fireside all over the kingdom.'

By the exertions of a Mr Winsor, a company was formed for supplying London with gas; but it struggled for many years with the difficulties at once of inexperience and public prejudice, and was a cause of loss to many individuals. This is the less to be wondered at, as the coal-gas first produced was not in a state of great purity: it was injurious to many articles of furniture, and to wares exposed in shops, and it had a very disagreeable smell. In course of time, how-

ever, methods have been devised, by the joint labours of the chemist and practical engineer, to remove nearly all its noxious and disagreeable qualities; and now the whole apparatus for making gas and the mode of its purification seem to be so perfect in well-constructed gas-works, that it is doubtful whether much remains to be done either in simplifying the processes or improving the quality of the product from coal.

The following is a brief and general statement of the process by which the best coal-gas is made:—Cannel or parrot-coal is quickly shovelled into a red-hot cylinder of iron or clay, and the mouth of the cylinder being closed by an appropriate lid, the vapours which instantly arise from the coal are carried away by a wide tube which passes from the cylinder into a series of vessels, where the mixed product is cooled, and loses much condensable matter: thus partially purified, the gas still contains sulphureous, and other vapours, which, if allowed to remain, would give it a very nauseous smell, and tarnish paint and metallic surfaces wherever it was burnt. To remove these impurities, it is subjected, in some gas-works, to dilute sulphuric acid, which separates ammonia; but it is mainly purified by quicklime, contained in a series of vessels, through which it is made to pass; and being thus cleared from all sulphureous gases, it flows on to the gasometer, where it is stored for use.

The change from all the older modes of illumination to the employment of coal-gas was certainly a very remarkable one, whether we look to the novelty of the method or to the brilliancy and economy of the light; yet it has only stimulated to the search for better methods and greater economy, and few arts have produced so many inventions in so short a time, or led to so great an expenditure in patents. It was a very natural step from the production of gas from coal to attempt to make it from oil, and it was not long before oil-gas appeared to compete with the other. The advantages claimed for the new gas were the simplicity of its preparation, for no purifiers were required; it could have no noxious qualities not equally pertaining to oil-lamps or candles; it gave a more brilliant light, and took longer time to burn, than an equal bulk of coal-gas. All these merits, however, though justly belonging to it, have not enabled it to compete with the superior economy of its progenitor, and oil-gas may be now considered to be in disuse.

The gases which have been spoken of, whether from coal or oil, are not simple or uncombined airs: they both consist of an air called hydrogen in combination with charcoal. When pure hydrogen is burned, it gives a very feeble light; but if a small portion of an incombustible substance be held in its flame, such as a piece of thin platinum wire, the wire becomes heated to whiteness, and is strongly luminous: it is said to be incandescent. In a common gas flame the charcoal is separated from the hydrogen before it is consumed; and thus losing its gaseous form, it exists for an instant in the condition of minute solid particles suspended in the flame. This fact, first explained by Sir Humphry Davy, can be made apparent by the introduction of the edge of a white plate into the burning gas. If the plate be thrust into the lowest part of the jet where the flame is blue, it will not be stained, because the charcoal is still in the gaseous state; but if it be raised to the middle of the flame, where the light is brilliant, it is instantly coated with charcoal. In accordance with these facts, it is seen that heated particles of charcoal are the source of light emitted from coal-gas; and as the luminosity of incandescent bodies is greater as the heat is more intense, an increase of light should be obtained by increasing the temperature of a flame by more rapid combustion—an object which is in so far effected in the Argand and other improved burners.

As early as about the beginning of the present century, Dr Thomas Young in London, and Dr Ure in

\* Mr Murdoch was a native of Scotland. There is a good full-sized portrait of him in the halls of the Royal Society of Edinburgh.—Ed.

Glasgow (1806), introduced a jet of oxygen (the great supporter of combustion) into the interior of the flame of a lamp, and thereby produced a more rapid combustion and an increase of light.

In 1838 and 1839 patents were taken by Mr G. Gurney for a similar method of burning an Argand oil-lamp, and also for coal-gas. This light, commonly attributed to him, takes its name from his residence in Cornwall, and is called the Bude Light. Mr Gurney also improved the London coal-gas for his lamp, by passing it through a vessel of naphtha, a vaporisable substance abounding in charcoal; and he finally obtained a light of so great brilliancy, that for flames of equal size it was twelve times more luminous than ordinary gas. Unfortunately, the Bude light is troublesome to manage, and expensive; and though it has been tried by the Trinity Board with a view to its introduction in lighthouses, and was used for some time to light up the House of Commons, we believe that it has been abandoned in both cases, and its expense is likely to prevent it from being ever generally adopted.

The principle of an incandescent solid body being the main source of the luminosity of flame, is beautifully apparent in another intense light, obtained by directing a stream of mixed oxygen and hydrogen gases upon lime or clay. It was first noticed by Dr Hare of Philadelphia, who used clay as the incandescent substance; but lime was subsequently employed at the suggestion of Mr Gurney, and it is now usually called the Lime-ball Light. The flame of the mixed gases which contain no solid matter is scarcely visible; but the heat is intense, and the lime at so high a temperature is almost too brilliant for the eye to look upon. It has been proposed to use the lime-ball as a miniature sun, where one powerful lamp might supersede a great number of ordinary lights; but it is not easily managed, and, like the Bude light, it is expensive.

Of late years experimenters in gas-making have mainly directed their attention towards new methods for procuring it at a cheaper rate than its present cost. And the easy preparation of hydrogen gas from water, long known to chemists, has especially pointed to it as a basis for their operations. Water, which is a compound of two gases—oxygen and hydrogen—is decomposed at a red heat both by iron and charcoal. If steam, for instance, be forced through a mass of red-hot iron filings, its oxygen is retained by the iron, and its hydrogen, which is an inflammable gas, passes off by itself. If, again, steam be passed through a quantity of red-hot charcoal or coke, it is equally decomposed; but in this case its oxygen is not retained; it forms gaseous compounds with the charcoal, which come over along with the hydrogen. In both cases the resulting gases will burn—but they give a very feeble light. In fact the *water gases*, as we may call them, cannot give much light, from their deficiency in charcoal, which we have already shown to be the great source of light in ordinary flame. On the other hand, there are many substances of no great value which, when heated, abound in vapours rich in charcoal—such as coal-tar, naphtha, resin, turpentine, &c.—but they deposit a great quantity of their charcoal when exposed to a decomposing temperature, and cannot be profitably converted into gas. Now if the water or other gases deficient in charcoal, and the tar or resin vapours holding it in excess, could be combined together, the probability is great that they would produce a gas of good illuminating power, and at a cheaper rate also than it can be manufactured from coal.

Viewing this problem theoretically, the chemist has some reason to doubt the facility of solving it; yet he is aware that otherwise improbable unions do take place when bodies meet each other in what may be called a nascent condition. And it is possible so to present the water gases and the resin vapours to each

other. Next to the first experiments by which coal-gas was brought into notice, we regard this era in the history of gas-making as the most interesting, and will therefore plead no excuse for narrating a number of its inventions. They may be regarded in four different groups—namely, those in which coal-gas is sought to be improved by the addition of carboniferous vapours; where the water gases are treated in the same way; where inferior gases are produced at the same time with the vapour of tar and resin; and finally, where the water gases are brought into contact, at a red heat, with the vapours forming from tar, resins, or oils. Mr Gurney's method of improving the London coal-gas for the Bude burner is an example of the first; and had the union of the gas with the naphtha vapour been permanent, the feat would have been accomplished. But the naphtha vapour is liable to be condensed into a liquid, and the improved gas cannot be passed through any great length of pipe. A patent was taken for a similar plan, however, in 1842, with what success we are not acquainted. In the second group we may rank a process by M. Jobard, which he invented in 1833, and laid before the Royal Academy of Brussels, who reported favourably on it in the beginning of 1834. It appears to have consisted in the production of gases from water, which were simply passed through liquid naphtha, so as to take up a portion of its vapour. In 1845 Mr J. Constable obtained a patent for producing gas by throwing steam upon anthracite coal at a red heat, and afterwards passing the mixed gas, with a certain portion of common air, through turpentine, to improve its luminosity. The same process, we believe, or a very similar one, was reproduced very lately in America, and had for a short time a considerable notoriety in the public prints. In all these cases the gases sought to be improved can only obtain a mechanical mixture of the vapours which increase their light; and as even the best coal or oil gases soon deteriorate when kept, it is not to be expected that such condensable vapours as those of naphtha or turpentine should remain with the gases which have imbibed with them, especially if the temperature is lowered. The third group includes a process patented by Mr Cobold in 1838, in which he produced gas fit for illumination by distilling peat saturated with coal-tar; and a patent process by J. C. Robertson in 1848, in which he proposes to distil a mixture of resin, sawdust, and some alkaline matters, passes the vapours over red-hot surfaces, and thereby produces, among other products, a gas fit for illumination. In the last group we include a second process by M. Jobard, which he appears to have invented soon after his experiments in 1833. He caused the gases formed by passing steam upon red-hot coke to come in contact with the vapours arising from resinous substances in a heated cylinder; his invention was sold by him for 10,000 francs to an individual in Paris, who passed it off as his own, and not only received for it gold medals from the Society of Encouragement and the Academy of Industry, but was in 1839 about to obtain the cross of the Legion of Honour, when the fraud was discovered.

In 1839 a patent was granted in England to M. de val Marino for a process essentially, if not actually, the same as Jobard's. The apparatus of this patent consisted in three upright cylinders filled with coke in small pieces, and brought to a bright red heat; water was allowed to drop into one of them, coal-tar into another, and the products from both were brought into contact in the third, from which the gas was led off in pipes. The quantity of water introduced, compared with the tar, was made a matter of calculation, but in practice it was regulated by the workman superintending the process, who had a small burner as a test of the quality of his product, and could increase or diminish the quantity of either ingredient according

to its indications. Practically and economically this method has proved a failure, owing to carbonic acid in the water gases, and sulphurous vapours given out by the coke—which greatly injured the illuminating power—and more especially from the tar in the second retort producing so rapid an incrustation around the coke, as speedily to destroy its decomposing power, and prevent all egress of gas through it. In 1845 a patent was taken by Mr J. Murdoch for a method of bringing the gases from water decomposed by coke in contact with the products distilling from coal and coal-tar, and thereby producing an improved gas; and another very ingenious process, for a similar end, was patented by Mr Croll in 1848. In 1847 Mr Stephen White of Manchester took a patent for what he calls hydro-carbon gas; and in 1849, secured by another patent various improvements in the manufacture of this and other gases for illuminating and heating purposes. His process differs from that of Jobard and Val-de-Marino principally in his substituting wood-charcoal and iron turnings for coke, and in a very improved form of apparatus. Mr White decomposes the carbonic acid in the water gases by causing them to pass through red-hot iron turnings, previous to their contact with the resin vapours. Water is made to drop into the top of a red-hot upright cylinder, the upper part of which is filled with wood charcoal, and the lower part with scrap iron or iron turnings; the water is decomposed by the charcoal before it meets the iron through which the newly-formed gases must also pass to arrive at the exit-pipe; they are then conveyed into a horizontal cylinder, also at a red heat, in which they meet with the carboniferous vapours arising from the decomposition of a small stream of melted resin or coal-tar, and (it is asserted) combine with them so as to form a permanent and highly-luminous gas. We have not ourselves seen or examined this gas, but we know it to be the opinion of individuals who have done so, and are apparently competent to decide the question, that an actual union is effected, and its applicability to all purposes of illumination in which coal-gas could be used is no longer a matter of speculation or opinion, but of fact. The towns of Southport in Lancashire, and Ruthin in Wales, are lighted up by it; and it has been for some time in use in a large factory in Manchester, and in several private establishments in different places.

The main superiority of this kind of gas over that which is produced from coal is its greater cheapness. One hundredweight of resin, which may be bought, including an estimate for carriage, for three or four shillings, is said to produce not less than from 1800 to 2000 feet of gas, yielding at the same time a residual oil equal to half the value of the resin; and the other materials, exclusive of the cost of fuel for heating the apparatus, may be had for a few pence. One individual, who lights up a large hotel in Harrowgate with this gas, states that he fills his gasometer, containing 1100 cubic feet, at a cost of thirteen pence for the gas-yielding materials—a price far below that for which he could get the same amount of gas from coals. In addition to its greater cheapness, this gas is also estimated by competent judges to be superior to the best coal-gas in brilliancy as well as durability; and it possesses several great advantages over coal, which will render it especially desirable for private establishments—namely, the smaller bulk and easier management of the apparatus, as well as its freedom from the offensive smells so characteristic of a coal-gas manufactory. In conclusion, we may observe that we have made particular mention of Mr White's apparatus, in connection with what appears to be a great improvement in gas-making, because we believe that it exhibits the principle reduced at last to a simple and an efficient working condition; and we have the greater pleasure in lending our assistance to its publicity, for this reason, that while we are interested in

every invention which promises to minister to the wants, or to increase the comfort of the community, we regard the cheaper production of light not only in this view, but as a powerful aid towards the moral and intellectual improvement of the industrious classes.

#### AN ESCAPE FROM SLAVERY IN AMERICA.

WILLIAM and Ellen Craft were reared in Georgia, and living near each other at Macon, they became in time man and wife. Their lot as slaves was not of the worst kind, but they nevertheless formed an ardent wish to escape from their bondage—an object in which they were at last successful. We for our own part know nothing of the couple beyond what they themselves relate. Their narration, however, involves such singular adventures, and forms so curious a contrast with the ordinary usages of a civilised country, that we are induced to give it a place in these pages.

William, who is a black man, had been apprenticed to a cabinetmaker, and in this occupation he in time became a source of considerable profit to his owner—not less, he says, than £45 a year. It was from gains made by himself in over-work that he realised the means of making his escape. Ellen, who is nearly white, belonged to a tyrannical lady, who, being annoyed at finding her often mistaken for a child of the family, gave her, when she was eleven years old, as a wedding-gift to her daughter. In the care of that lady she was better treated; but she nevertheless longed for freedom. Whenever she and William met after their marriage, they contrived and discussed plans of escape. At length, in 1848, they resolved on the ingenious expedient of disguising Ellen as a white young gentleman, while William should act as his servant, or rather slave. By cautious degrees they procured the necessary articles, buying one at one place, and another at another. Ellen then asked leave to go to see a sick aunt, and, after much intreaty, received the necessary permission. William, with much difficulty, obtained a similar permission to accompany his wife; and they lost no time in availing themselves of the liberty granted, that they might extend it to a point little thought of by the master and mistress. William cut off his wife's hair, and provided her with a pair of green spectacles. There was one difficulty which for a while puzzled them: this was, that at the railway-offices, &c. they might be asked to write their names, and neither of them could read a letter, much less write one. So it was fixed that Ellen should pass for a very sickly young gentleman suffering from inflammatory rheumatism, which required the right hand to be kept poulticed.

This ignorance of being able to read, on more than one occasion nearly betrayed Ellen. Once a very kind-hearted gentleman, pitying her delicacy, presented her with a receipt for rheumatism, for which she thanked him politely, and, folding it carefully up, put it in her pocket, lest, in pretending to read it, she might hold it upside down.

They first travelled to Savannah, and then took the steamboat to Charleston in South Carolina. On arriving there they went to the first hotel. William took care to secure a good room for his master, and to provide two hot poultices for the rheumatic hand and face. These, however, were not used till the poor invalid had tried to get some rest; the faithful slave then went to blacken the master's boots, and to perform all the usual necessary services; after which, dinner being served, the master with all honour was seated at the guest-table, and treated with the best viands, while the slave was sent off to the kitchen with a rusty knife and fork and broken plate to get a few rough scraps. These, however, suited him as well as daintier fare, for appetite failed him at the moment, and he returned to the side of his master, who soon finished the repast, and, leaning on his slave for support, returned to the steamer.



When they reached the office, the master asked for tickets for himself and servant to Philadelphia. The clerk requested him to write his name, to which he replied by pointing to his poulticed arm, and requesting the clerk to write the name. He declined, saying such was not his duty; but the difficulty was met by the captain of the steamer offering to do it, and William Johnston's name was entered on the books.

On arriving at Wilmington, they took the railway, and travelled through Virginia. At Petersburg an old gentleman with two nice daughters got into the car along with the master. The old gentleman soon entered into conversation, and expressing much sympathy with the poor young man on his bad health, invited him to recline on the couch (which in the American railway cars stretches across one end of the saloon-like apartment), and also to take off his boots. These attentions were suffered, in the hope that further conversation would be avoided. The interesting young gentleman seemed to excite much sympathy in the young ladies, who were overheard expressing their interest in warm terms: they handed him refreshments, and vied with each other in attentions till they reached Richmond, Virginia, where the old gentleman and his daughters left the train, but not before warmly inviting their fellow-passenger to visit them whenever he went that way again.

The fugitives proceeded in the same way, with many terrors excited by the various incidents of the road, but in safety, to Fredericksburgh, thence to Washington, and thence to Baltimore, which place they reached on the third day after leaving Macon. Here a great danger awaited them. The slave was accosted, and asked where he was going. He said he belonged to a sick young gentleman, and was going to Philadelphia. They were then informed that no negro was allowed to pass from the slave into the free states, between which this was the boundary, without a certificate to prove that all was right, and that they must go to the office to be examined. The clerk asked the master, 'Is this your servant?' to which he replied in the affirmative. 'Well, then,' said the clerk, 'it is against our rules to allow any slaves to pass unless we have security that all is right. You must get some gentleman who knows you to certify that you have a right to take this fellow with you.' The master replied, with more energy than could have been expected from a person of such delicate appearance, 'that he had bought tickets in Charleston to take both to Philadelphia; that he knew several gentlemen there, but that he did not know it was necessary to bring them along with him to certify that he was master of his own slave.' 'Well,' said the clerk, 'you must stay here then, as it is against our rules to let you pass.' But in the end, after some minutes' deliberation and consultation, he said, 'I don't know what to do about it; but he is a sick young fellow, and I suppose I must tell the conductor to let him and his slave go on.' So the two fugitives, with trepidation which can scarcely be conceived, but with thankfulness of heart, resumed their seats in the train, and entered the free states.

Here the coloured man had to be parted from his master, and to take his seat in the negro car, where he made inquiries as to lodging-houses in Philadelphia, and being satisfied as to the character of one for the coloured people, he repaired to it with his wearied but thankful wife, who concurred with him in thinking the effort well repaid by their being free; and though not a penny almost was left them, they considered the hard savings of all their previous lives well spent in securing the blessed boon of liberty. They made their case known to the lodging-house keeper, who introduced them to several friends, who thought it best for them to remove to Boston, where their safety was less liable to be endangered. Accordingly they repaired to that city, where they settled down, William to pursue his

trade of cabinetmaking, and Ellen to work with her needle.

In this way they maintained themselves respectably, and procured a little education, so as to enable them to read and write. They had formed pleasant plans for the winter of 1850 and 1851, of working in the day, and going to evening-schools to obtain what they so much prized—a little more learning—when the fugitive-slave law came into operation; and on the very first evening they attended the school, the warrant was issued for their apprehension, and the slave-catchers were abroad in Boston. William Craft lost no time in placing his beloved Ellen in a situation of concealment, and, as he hoped, safety, and then he left her, thinking at the time he would never see her again; for although he had resolved never to go back to slavery again, he fully contemplated that he should die in the attempt to resist his captors. The excitement and agitation of the three or four days' hunt in Boston were extreme; but William and Ellen ultimately succeeded in getting on board a British vessel, while the kidnappers were at New York.

They arrived about three months since in Liverpool, where, for the first time, they set foot on really free soil. They are described as very interesting and intelligent persons. Ellen is a gentle, refined-looking young creature of twenty-four years, as fair as most of her British sisters, and in mental qualifications their equal too. William is very dark, but of a reflective, intelligent countenance, and of manly and dignified deportment.

#### LIBRARY COBWEBS.

*Diapason of Laughter.*—An ancient writer has remarked that the five vowels form a diapason for the laugh in general. According to this singular observer, man laughs in A, woman in E, the devout woman in I, the countryman in O, and the old woman in U. We should, however, observe that the first vowel must be sounded like the Italian A, or like that letter in the word father, which is the sound given to this keystone of knowledge in almost all languages but our own. We leave it to the reader fond of a laugh to ascertain how far the assertion of the eccentric author is borne out in the manly *Ha, ha, ha!* and the feminine titter, so full of malice, *He, he, he!* The vowel I might also seem to express the more devout laugh, partaking rather of the languid *Heigho!* than the gay and hearty *Ha, ha, ha!* How well, too, the O sounds the merriment of the honest countryman, whose gaiety arises more from astonishment than from any lively perception of the ridiculous. Some village wit has been repeating for the hundredth time some wonderful tale, or performing some practical joke, and out bursts the boisterous *Ho, ho, ho!* Lastly, the poor old lady, forced to economise her breath, finds the fifth vowel more kind to her infirmities, and gives utterance to her feeble mirth in an asthmatic *Heu, heu, heu!*

An Italian astronomer, Damascene, published in 1662 a pamphlet of six sheets, printed at Orleans, in which the different temperaments of men and women are indicated by their various kinds of laughs. The laugh in I, says this grave author, denotes the melancholic disposition; in E, the bilious; in A, the phlegmatic; and in O, the sanguine temperaments.

*Early Alphabets.*—Godeffroy Henselius, in his 'Synopsis Universæ Philologie,' published at Nuremberg so late as the year 1741, gives the alphabets of Adam, Enoch, and Noah; and even dwells at some length on the language spoken by the angels. Another author, Andrew Kempe, maintains that God spoke to our first parents in Swedish, and that Adam replied in Dutch; and, as if to confirm the ancient reputation of the French for gallantry, he declares that the serpent tempted Eve in French.

*Peculiarities in Authors.*—The French historian, Mezerai, wrote only by candle-light, even in the daytime, and in the middle of summer. He never failed to conduct his visitors to the door with a candle in his

hand; and whenever he wrote, a bottle of wine was always placed on the table. Varillas, contemporary with Mezerai, wrote only at daylight, and pretended that all his knowledge had been acquired in conversation, which might perhaps account for the fabulous statements to be met with in his works. This romantic historian boasted that he never dined out once during thirty-four years; and he disinherited a nephew because he knew not how to spell. The celebrated French juriconsult Cujas always wrote and studied while stretched out on a carpet with his books around him. Magliabecchi, a learned Italian of the seventeenth century, passed all his life in the midst of books. His meals were most frugal, and a few eggs, with a little bread and water, his ordinary food. His usual bed was the chair he sat in; and, surrounded by his books, his thoughts were wholly absorbed in study. The only beings he appeared to take an interest in were his spiders; and he would often cry out to those visitors whose curiosity appeared to him imprudent, to take care and not injure his spiders. It was to this celebrated librarian that a Cardinal Noris wrote, 'that he was more obliged to him for having directed his studies than to the pope for making him a cardinal.'

*Learned Infant.*—Among the numerous infant prodigies and examples of precocious learning, the most remarkable on record was Christian Henry Heineken, born in Lubeck in 1721. It is related that at ten months this extraordinary infant was acquainted with geography, as well as ancient and modern history; and when only two years and a half old, he could speak with fluency the French and Latin languages. He was taken to Denmark in his fourth year, where he harangued the king and royal family. His body was delicate and infirm, and he was averse to every kind of food but his nurse's milk. He died in 1725, in the fourth year of his age; and his death is stated to have been so edifying, as to have astonished those who beheld it still more than the wonderful knowledge he displayed during his brief existence.

#### 'MARK ISAMBARD BRUNEL.'

In an article with the above title, in No. 368 of this Journal, the invention of the blockmaking machinery in Portsmouth dockyard is attributed to Brunel. We are now assured, however, that many of the most money-saving machines subservient to the manufacture of blocks were invented by General Bentham, and were actually in use in that dockyard before the year 1802, in which Brunel first presented himself to the general. It was not by the friendly offices of either Lord or Lady Spencer that Brunel's part of that machinery was introduced. By General Bentham's advice it was proposed to the Admiralty in 1802, during Lord St Vincent's naval administration; and through his recommendation, both private and official, it was adopted. The remuneration to Brunel was not £20,000, but £16,621, 8s. 10d., being the precise amount of a year's savings made by manufacturing blocks and blockmaker's wares on government account, instead of obtaining them, as theretofore, by contract.

#### AMERICAN SENTIMENT.

I encountered to-day in a ravine some three miles' distant, among the gold-washers, a woman from San Jose. She was at work with a large wooden bowl, by the side of a stream. I asked her how long she had been there, and how much gold she averaged a day. She replied, 'Three weeks and an ounce!' Her reply reminded me of an anecdote of the late Judge B——, who met a girl returning from market, and asked her, 'How deep did you find the stream!—what did you get for your butter?' 'Up to the knee and nincence,' was the reply. 'Ah!' said the judge to himself, 'she is the girl for me; no words lost there:' turned back, proposed, and was accepted, and married the next week. And a more happy couple the conjugal bonds never united; the nuptial lamp never waned—its ray was steady and clear to the last. Ye who paddle off and on for seven years, and are at last perhaps

capsized, take a lesson of the judge, that 'up to the knee and nincence' is worth all the love-letters and melancholy rhymes ever penned.—*American Paper.*

#### SONGS IN THE NIGHT.

##### THE TEMPLE IN DARKNESS.

DARKNESS broods upon the temple,  
Glooms along the lonely aisles,  
Fills up all the orient window,  
Whence, like little children's wilcs,  
Shadows—purple, azure, golden—  
Broke upon the floor in smiles.  
From the great heart of the organ  
Bursts no voice of chant or psalm;  
All the air, by music-pulses  
Stirred no more, floats deathly calm;  
And no precious incense rising,  
Falls, like good men's prayers, in balm.  
Not a sound of living footstep  
Echoes on the marble floor;  
Not a sigh of stranger passing  
Pierces through the closed door.  
Quenched the light upon the altar:  
Where the priest stood, none stands more.  
Lord, why hast thou left thy temple  
Scorned of man, disowned by thee!  
Rather let thy right hand crush it,  
None its desolation see!  
List—'He who the temple builded  
Doth his will there. Let it be!'

##### A LIGHT IN THE TEMPLE.

Lo, a light within the temple!  
Whence it cometh no man knows;  
Barred the doors: the night-black windows  
Stand apart in solemn rows.  
All without seems gloom eternal,  
Yet the glimmer comes and goes—  
As if silent-footed angels  
Through the dim aisles wandered fair,  
Only seen amid the darkness  
By the glory in their hair.  
Till at the forsaken altar  
They all met, and praised God there!  
Now the light grows!—fuller, clearer!  
Hark, the organ 'gins to sound,  
Faint, like broken spirit crying  
Unto Heaven from the ground;  
While the chorus of the angels  
Mingles everywhere around!  
Lo, the altar shines all radiant,  
Though no mortal priest there stands,  
And no earthly congregation  
Worships with uplifted hands:  
Yet They gather, slow and saint-like,  
In innumerable bands!  
And the chant celestial rises  
Where the human prayers have ceased:  
No tear-sacrifice is offered,  
For all anguish is appeased.  
Through its night of desolation,  
To His temple comes—the Priest!

#### DECISION.

Things should not be done by halves; if it be right, do it boldly; if it be wrong, leave it undone. Every day is a little life, and our whole life is but a day repeated.—*Bishop Hall.*

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